

Docket No. F-8836

Ser. No. 10/552,255

REMARKS

Claims 1, 8, 15 and 17-22 are now pending in this application. Claims 1-11 and 13-16 are rejected. Claim 12 is objected to. Claims 2-7, 9-14 and 16 are cancelled herein. New claims 17-22 are added. Claims 1, 8 and 15 are amended herein to address matters of form unrelated to substantive patentability issues.

TITLE OBJECTION

The title is objected to in the Office Action as being nondescriptive. The title is amended to read "LIGHT-EMITTING DEVICE WITH SPHERICAL PHOTOELECTRIC CONVERTING ELEMENT" as suggested in the Office Action to overcome this objection. It is respectfully submitted that the amended title is sufficiently descriptive. Applicant respectfully requests that the objection to the title be withdrawn.

OBJECTION TO ABSTRACT

The Examiner objects to the abstract on the basis that it refers to purported merits of the invention. The abstract is amended herein in accordance with the Examiner's helpful suggestions. It is submitted that the amended abstract is in full conformance with 37 CFR 1.72 and MPEP 608.01(b). Therefore, reconsideration of the objection to the abstract is respectfully requested.

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CLAIM OBJECTIONS

The claims are objected to due to verbose wording. Claim 1 is amended substantially in accordance with the Examiner's suggestions to more concisely state the invention. Accordingly withdrawal of the objections is respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-10, 13 and 15 are rejected as obvious over the Dunbar reference in view of the Ishikawa reference under 35 U.S.C. §103(a). Claims 11 and 14 are rejected as obvious over the Dunbar reference in view of the Ishikawa reference and further respectively in view of the Lieber or O'Connor references under 35 U.S.C. §103(a). For a rejection under 35 U.S.C. §103(a) to be sustained, the differences between the features of the combined references and the present invention must be obvious to one skilled in the art.

The Examiner indicates that claim 12 contains allowable subject matter and would be allowable if rewritten in independent form including all the present limitations. Applicant has now amended claim 1 to include the subject matter of claim 12 and the intervening claims and has also revised the claim wording to better relate the sensor output and amplification. The revision is not viewed as altering distinguishing subject matter considered allowable by the

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Examiner in a manner that would affect the Examiner's determination that allowable subject matter is present. Therefore, it is respectfully submitted that claim 1 and claims 8, 15 and 17 dependent therefrom are thus in condition for allowance and notice to that effect is respectfully solicited.

NEW CLAIMS

Claims 17-24 are added. Claim 18 recites the feature that partial-spherical metallic reflection members are disposed below the spherical photo-electric converting elements, configured to reflect light incident on the partial-spherical metallic reflection members to a lower surface of said spherical photo-electric converting elements, and are also configured to function as a lead frame. Furthermore, the claim recites the feature that a series connection of the photo-converting elements is made using the partial-spherical metallic reflection members. In particular, the claim states:

said spherical photo-electric converting elements being connected in series by said first electrodes of each of said spherical photo-electric converting elements, with exception of a last one of said spherical photo-electric converting elements in the series, being connected to one of the partial-spherical metallic reflection members disposed below an adjacent one of said spherical photo-electric converting elements in the series.

It is submitted that such a configuration is not taught by the applied references.

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Claim 19 further recites that the second electrodes are connected by a conductive bonding material to the partial-spherical metallic reflection members.

Claim 20 further recites that the luminous device is bonded by conductive material to one of the partial-spherical metallic reflection members. It is submitted that these features are not rendered obvious by the applied references.

Claim 21 reflects the subject matter introduced in claim 12 which was indicated as containing allowable subject matter. Hence, it is submitted that claim 21 and its dependent claims 22-24 are allowable.

NO FEE DUE


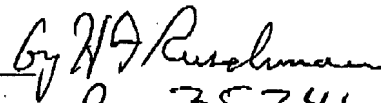
No fee is believed due. If there is any fee due the USPTO is hereby authorized to charge such fee to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.


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